

Application Serial No. 10/045,340
Art Group Unit 2833

IN THE CLAIMS

1. - 39. (canceled)

40. (currently amended) An electrical connector for establishing permanent electrical communication between internal components of an implantable medical device (IMD) wherein said internal components couple to deployable medical electrical leads comprising:

a molded housing of insulating material adapted to sealingly couple to a surface of an implantable medical device, said housing comprising a plurality of contact pad-receiving interlocking structures;

a stamped insert having each of a plurality of contact pads sealingly secured to a one of the plurality of contact pad-receiving interlocking structures of the molded housing and;

a manually removable tab attached to the stamped insert; and

means formed in each of said plurality of contact pads adapted for permanently attaching an electrical wire to each contact pad.

41. (currently amended) ~~The~~A connector of claim 40, wherein the insulating material comprises moldable plastic and wherein the means for permanently attaching an electrical wire further comprises at least one aperture.

42. (currently amended) ~~The~~A connector of claim 40, wherein the insulating material comprises one of the group: a glass material, a resin-based material, a thermoplastic material.

43. (currently amended) ~~The~~A connector of claim 40, wherein the electrical connector comprises a thin, substantially flat strip connector member.

44. (previously presented) The connector of claim 40, wherein the manually removable tab comprises a scribed line disposed on a surface of the manually removable tab.

45. (currently amended) An apparatus for permanently connecting electrically-conducting components of an implantable medical device so that deployable medical electrical leads can be coupled thereto, comprising:

at least one electrical connector comprising a tab section and a plurality of spaced-apart electrically conducting bonding pads; and
a non-conductive housing at least partially enclosing the plurality of spaced-apart electrically conducting bonding pads of the at least one electrical connector, wherein said non-conductive housing comprises a plurality of structures adapted to mechanically interlock and individually retain each of the spaced-apart electrically conducting bonding pads, and wherein the at least one electrical connector is adapted to assist manual separation of the tab section from the plurality of spaced-apart electrically bonding pads connector.

46. (currently amended) An apparatus according to claim 45, wherein the apparatus is adapted to capable of providing electrical connection between a plurality of electrical components internal and external to the implantable medical device.

47. (currently amended) An apparatus according to claim 45, wherein the at least one electrical connector comprises a series of electrical connectors temporarily attached by the tab section.

48. (currently amended) An apparatus according to claim 47, wherein the series of electrical connectors are capable adapted to be manually ~~being~~ segmented into discrete components after the molding of the housing around the connectors ~~and the removal of the tab sections~~.

49. (previously presented) An apparatus according to claim 45, wherein the apparatus is a component of a header assembly for an implantable medical device.

Application Serial No. 10/045,340
Art Group Unit 2833

50. (currently amended) An apparatus according to claim 45, wherein the housing comprises an electrically insulative material.
51. (previously presented) An apparatus according to claim 45, wherein the housing comprises moldable plastic.
52. (currently amended) An apparatus according to claim 45, wherein the housing comprises one of the group: a glass material, a resin-based material, a thermoplastic material.
53. (canceled)
54. (currently amended) An apparatus according to claim 45, wherein the at least one electrical connector conducts electrical signals between a plurality of contact surfaces on each electrical connector, wherein the housing provides isolation between the various at least one electrical connectors and the spaced-apart electrically conducting bonding pads.
55. (currently amended) An apparatus according to claim 54, wherein a plurality of electrical wires proceeding from which couple to a similar plurality of electrical components are welded to the plurality of electrical contacts.
56. (currently amended) An apparatus according to claim 45, wherein the at least one electrical connector comprise an electrically conductive metallic material.
57. (currently amended) An apparatus according to claim 45, wherein the at least one electrical connector comprise a base metal having at least one plating material.
58. (currently amended) An apparatus according to claim 57, wherein the metal comprises plating material is chosen from the group comprising one of the group: a gold material, a nickel material, and their alloys thereof.

59. (currently amended) An apparatus according to claim 45, wherein the implantable medical device comprises at least one of a pacemaker, a cardioverter, a defibrillator, a neural stimulator, and a drug administering device.
60. (currently amended) A feedthrough arrangement for establishing permanent electrical communication between internal circuits of an implantable medical device (IMD) and at least one removeable remote electrical component, comprising:
a plurality of spaced-apart electrical contacts for conducting electrical signals communicated through a plurality of elongated conductors;
a molded housing comprising an electrical insulating material, the molded housing enclosing a portion of the plurality of electrical contacts, the housing being disposed in sealing engagement therewith said portion of the plurality of electrical contacts, the housing further comprising a plurality of apertures, wherein the plurality of apertures are adapted for permanently receiving electrical wires for connection with the plurality of electrical contacts; and
wherein the feedthrough arrangement is a component of an implantable medical device.
61. (currently amended) A feedthrough arrangement according to claim 60, wherein the housing comprises one of: a moldable plastic material, a thermoplastic material, a resin-based material.
62. (currently amended) A feedthrough arrangement according to claim 60, wherein the housing comprises one of: a glass material, a ceramic material, a dielectric material.
63. (currently amended) A feedthrough arrangement according to claim 60, ~~further comprising~~ wherein:

Application Serial No. 10/045,340
Art Group Unit 2833

the housing ~~having an opening and the housing defining~~ a first internal environment disposed within the housing; and wherein the plurality of electrical contacts extend from the first environment ~~within the housing to a second environment outside not inside of~~ the housing.

64. (currently amended) A feedthrough arrangement according to claim 63, wherein the plurality of apertures extend from the first environment ~~within the housing to a~~ second environment outside of the housing.

65. (currently amended) A feedthrough arrangement according to claim 63, wherein the plurality of electrical contacts conduct electrical signals between the first environment and the second environment and the housing provides electrical, fluid and mechanical isolation between the first and second environments.

66. (currently amended) A feedthrough arrangement according to claim 65, wherein the plurality of electrical contacts are welded to ~~the~~ a similar plurality of electrical wires that are disposed through the plurality of apertures.

67. (previously presented) A feedthrough arrangement according to claim 60, wherein the plurality of electrical contacts comprise a metal.

68. (currently amended) A feedthrough arrangement according to claim 60, wherein the plurality of electrical contacts comprise a a geometrically shaped member ~~base metal having at least one plating material.~~

69. (currently amended) A feedthrough arrangement according to claim 68, wherein the plurality of electrical contacts comprise a base metal and wherein said base metal plating material is chosen from the group comprising: a gold material, a nickel material, and their alloys of the gold material and the nickel material.

70. (currently amended) A feedthrough arrangement according to claim 60, wherein the housing and the plurality of electrical contacts are ~~a component disposed within a~~ header module of an implantable medical device.

71. (currently amended) A feedthrough arrangement according to claim 70, wherein the implantable medical device comprises at least one of: a pacemaker, a cardioverter, a defibrillator, a neural stimulator, and a drug administering device.

72. (currently amended) An electrical connector for permanently coupling a plurality of elongated electrical wires to circuitry disposed within an implantable medical device circuitry, comprising:

- an insert member comprising a plurality of electrical contact pads and a connecting tab severably connected to the plurality of electrical contact pads; and

- an electrically insulative housing, the housing comprising discrete interlocking structures in contact with and retaining each of the plurality of electrical contact pads;

- wherein each of the contact pads of the electrical connector is a component in an implantable medical device.

73. (previously presented) An electrical connector according to claim 72, wherein the connecting tab is readily manually detachable from the plurality of electrical contacts.

74. (currently amended) An electrical connector according to claim 72, wherein the plurality of electrical contact pads ~~are capable of providing electrical communication connection between components~~ disposed within the implantable medical device.

Application Serial No. 10/045,340
Art Group Unit 2833

75. (previously presented) An electrical connector according to claim 72, wherein the electrically insulative housing comprises a moldable plastic material.
76. (currently amended) An electrical connector according to claim 72, wherein the electrically insulative housing comprises one of a glass material and a ceramic material.
77. (currently amended) An electrical connector according to claim 72, wherein the electrically insulative housing comprises a plurality of apertures capable of communicating electrical wires through the plurality of apertures and to the plurality of electrical contacts.
78. (canceled)
79. (canceled)